Application/Control Number: 10/771,444 Page 2

Art Unit: 3761

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or
additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR
 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Jones on May 20, 2009.

The application has been amended as follows:

Claim 1, line 9; after, "jet-guiding portion", [] is deleted.

Claim 15, line 6: after "body's rear side", [] is deleted.

Claim 16, line 9: [portion] is deleted, - port- is added.

The following is an examiner's statement of reasons for allowance:

3. Per independent claims 1, 15 and 16:

4.

comprising a circular-truncated half-spherical shape vessel body having a hollow portion profile which converges from the rear to front side and having a liquid-introducing pipe connected to a circumferential wall of the vessel body's rear; and an air/liquid jetting port and flow-out portion located at the vessel front end; in combination with an air self-suction port that is opened and formed on a rear wall of the vessel body wherein the rear wall is disposed opposite the air/liquid

Independent claim 1 includes limitations relating to a suction-cleansing device

jetting port; in combination with an air/liquid jetting port and flow-out portion located at the

front end portion of the body; and an air/liquid jet-guiding portion.

Page 3

5. Independent claim 15 includes limitations relating to the above noted combination of features and further in combination with a tank portion which covers the rear wall of the vessel body and which supplies air via the air self suction port in combination with an air introducing port attached to the tank portion.

- 6. Independent claim 16 includes limitations relating to the above noted features of claim 1 and claim 15 and further in combination with a rotating member having screwed or fitted portions opened and formed in the rear wall of the vessel body and said rotating member is provided in a covered manner on the rear wall of the vessel body centered around a position deviated from the axial center of the vessel body or an air axis formed within the vessel body and further in combination with the air self-suction port formed on the rotating member at a position deviated from a rotating axis of the rotating member.
- The closest prior art of record uncovered during examination discloses the following elements:
- 8. US Patent No. 6.706,006 B2 issued to Kostrov et al: teaches a cylindrical vessel body having a spherical shape and cylindrical hollow profile, liquid-introducing pipe connected to a circumferential wall of the vessel body, said circular body rendering the terms "rear", "side" and "front" relative terms with respect to other components or features of the housing; an air/liquid jetting port located at a bottom end of the cylindrical housing with a closed wall opposite the jetting port; and an air self-suction port which is opened and formed on the wall of the housing opposite the air/liquid introducing pipe.
- This provides a different mode of operation resulting in the air axis formed within the hollow portion being perpendicular to the suctioned-in air from the self-suction port and

Art Unit: 3761

perpendicular to the out-flow of water from the jetting port; while the instant air axis is formed co-axial with the suctioned air and out-flow through the jetting port. It would not have been obvious to rearrange the locations of all of these elements of Kostrov on the vessel body of Kostrov, i.e. housing of Kostrov because the cylindrical shape of the housing would thwart forming an air axis and would cause the air/liquid to flow out of the suction port rather than the jetting port.

- 10. Kostrov does not teach an air self-suction port opposite the jetting port and does not teach the air/liquid jetting port having an air/liquid jet-guiding portion extending circumferentially outward therefrom, and therefore does not teach a flow-out portion composed of one of notches and ports formed in a front end portion of the air/liquid jet-guiding portion.
- 11. Kostrov does not teach a tank having an air-introducing port or a rotating member.
- 12. US Patent No. 6,962,298 B1 issued to Martin: teaches a circular-truncated half-spherical vessel body having a hollow portion converging profile with a cylindrical extension at the front portion; and a rotating member on the front portion of the housing, said rotating member adjusts the flow of water from the jetting port / flow-out portion; and self-suction port located at the front of the housing. Martin teaches both the air self-suction port and jetting / flow-out port on the front end portion and thus results in a different mode of operation as the air mixes with the liquid at the flow-out / jetting portion rather than in the hollow portion of the vessel and thus does not form an air axis. The rotating member of Martin adjusts water flow from the flow-out port and is not covered while the instant rotating member adjusts the amount of air suctioned into the hollow via the self-suction port and is provided in a covered manner on the rear wall.

Art Unit: 3761

- 13. US Patent No. 5,230,106 issued to Henkin et al: teaches a tank portion and slide valve for directing water flow through the tank portion. Henkin teaches the self-suction port located at the jetting port / flow-out portion such that air is mixed with water at the out-flow port and no air axis is created, tank of Henkin only contains water, the air introducing port of Henkin does not supply air to tank but to rather to the discharge outlet, while the instant self-suction port located opposite the flow-out port results in the air being entrained and mixed with the liquid from the liquid-introducing pipe within the tank and then within the hollow portion along the air axis prior to discharge thus resulting in a different tank and air-introducing port and thus a different mode of operation.
- 14. While the prior art of record discloses various elements of vessel bodies, pipes, ports, tanks and rotating members, none disclose or fairly suggest the specific combination of an air self-suction port formed on a rear wall in combination with an air/liquid jetting port formed opposite the suction port at a front end portion of a vessel body as now specifically recited in independent claims 1, 15 and 16; and further in combination with a tank portion having an air-introducing port as now specifically recited in independent claims 15 and 16 and further in combination with a rotating member formed in the rear wall and provided in a covered manner on rear wall as now specifically recited in independent claim 16. These features render the claimed invention nonobvious over the prior art of record. Claims 2-14 are allowable as being dependent from independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue Application/Control Number: 10/771,444

Art Unit: 3761

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance"

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginger T. Chapman whose telephone number is (571)272-4934. The examiner can normally be reached on Monday through Friday 9:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on (571) 272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ginger T Chapman/ Examiner, Art Unit 3761 5/21/09 /Tatyana Zalukaeva/ Supervisory Patent Examiner, Art Unit 3761